

GenCore version 4.5  
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OM nucleic - nucleic search, using sw model

Run on: September 16, 2002, 21:43:49 ; Search time 85.23 Seconds

(without alignments)  
5167.440 Million cell updates/sec

Title: US-09-719-017A-2

Perfect score: 1793

Sequence: 1 gaattccctgttgacacatta.....caattaccatcgaatgccgcggg 1793

Scoring table: IDENTITY\_NUC

Gapop 10.0 , Gapext 1.0

Searched: 383533 seqs, 122816752 residues

Total number of hits satisfying chosen parameters: 767066

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued\_Patents\_NA:\*

1: /cgn2\_6/ptodata/2/1na/5A\_COMB.seq:\*

2: /cgn2\_6/ptodata/2/1na/5B\_COMB.seq:\*

3: /cgn2\_6/ptodata/2/1na/6A\_COMB.seq:\*

4: /cgn2\_6/ptodata/2/1na/6B\_COMB.seq:\*

5: /cgn2\_6/ptodata/2/1na/PTUS\_COMB.seq:\*

6: /cgn2\_6/ptodata/2/1na/backfile1.seq:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed.  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	404	22.5	5096	1 US-08-106-433A-3	Sequence 3, Appli
2	404	22.5	5110	1 US-08-106-433A-4	Sequence 4, Appli
3	404	22.5	5110	1 US-08-106-433A-5	Sequence 5, Appli
4	404	22.5	5110	1 US-08-106-433A-6	Sequence 6, Appli
5	404	22.5	5110	1 US-08-106-433A-7	Sequence 7, Appli
6	404	22.5	5110	1 US-08-106-433A-8	Sequence 8, Appli
7	404	22.5	5110	1 US-08-106-433A-9	Sequence 9, Appli
8	404	22.5	5110	1 US-08-106-433A-10	Sequence 10, Appli
9	404	22.5	5110	1 US-08-106-433A-11	Sequence 11, Appli
10	404	22.5	5110	1 US-08-106-433A-12	Sequence 12, Appli
11	404	22.5	5110	1 US-08-106-433A-13	Sequence 13, Appli
12	404	22.5	5110	1 US-08-106-433A-14	Sequence 14, Appli
13	404	22.5	5110	1 US-08-106-433A-15	Sequence 15, Appli
14	332.8	18.6	4476	3 US-08-801-344-2	Sequence 2, Appli
15	332.8	18.6	4476	3 US-09-498-599-2	Sequence 1, Appli
16	332.8	18.6	4593	3 US-08-801-344-1	Sequence 1, Appli
17	332.8	18.6	4593	2 US-09-498-599-1	Sequence 1, Appli
18	332.8	18.6	7475	2 US-08-971-036-1	Sequence 1, Appli
19	332.8	18.6	7475	3 US-09-056-570-1	Sequence 1, Appli
20	328.6	18.3	1097	2 US-08-761-258-7	Sequence 7, Appli
21	328.6	18.3	1097	2 US-08-977-306-7	Sequence 7, Appli
22	328.6	18.3	3301	2 US-08-447-430A-42	Sequence 42, Appli
23	328.6	18.3	3423	2 US-08-447-430A-40	Sequence 40, Appli
24	328.6	18.3	3423	4 US-09-465-737B-86	Sequence 86, Appli
25	328.6	18.3	3474	2 US-08-447-430A-41	Sequence 41, Appli
26	328.6	18.3	3474	2 US-08-318-837-10	Sequence 10, Appli
27	328.6	18.3	4009	2 US-08-500-860A-2	Sequence 2, Appli

28	328.6	18.3	5238	6 US-08-531-601-3	Patent No. 5453363
29	328.6	18.3	6312	1 US-08-531-601-3	Sequence 3, Appli
30	328.6	18.3	6312	2 US-08-859-032-3	Sequence 6, Appli
31	328.6	18.3	8430	4 US-09-131-028A-6	Sequence 10, Appli
32	328.6	18.3	8430	4 US-09-131-028A-10	Sequence 15, Appli
33	290.8	16.2	4296	1 US-08-316-950-15	Sequence 15, Appli
34	290.8	16.2	4296	5 PCT-US95-12642-15	Sequence 16, Appli
35	290.8	16.2	4352	1 US-08-316-950-16	Sequence 16, Appli
36	290.8	16.2	4352	5 PCT-US95-12642-16	Sequence 16, Appli
37	290.8	16.2	6047	1 US-08-316-950-12	Sequence 12, Appli
38	290.8	16.2	6047	5 PCT-US95-12642-12	Sequence 12, Appli
39	267.4	14.9	1035	2 US-08-690-493-2	Sequence 3, Appli
40	267.4	14.9	1200	2 US-08-690-493-3	Sequence 3, Appli
41	225.2	12.6	665	4 US-09-214-214A-12	Sequence 12, Appli
42	225.2	12.6	665	4 US-09-255-953-9	Sequence 9, Appli
43	222.4	12.4	469	2 US-08-647-368A-1	Sequence 1, Appli
44	213.2	11.9	663	4 US-09-214-214A-11	Sequence 11, Appli
45	213.2	11.9	663	4 US-09-255-953-8	Sequence 8, Appli

## ALIGNMENTS

RESULT 1  
US-08-106-433A-3  
Sequence 3, Application US/08106433A  
Patent No. 5385834  
GENERAL INFORMATION:  
APPLICANT: Richard A. Ikeda  
TITLE OF INVENTION: Mutant T7 RNA Polymerase GPI(Lys222)  
TITLE OF INVENTION: Exhibiting Altered Promoter Recognition  
NUMBER OF SEQUENCES: 23  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Deveau, Colton, and Marquis  
STREET: Two Midtown Plaza, Suite 1400,  
STREET: 1360 Peachtree St., NE  
CITY: Atlanta  
STATE: Georgia  
COUNTRY: USA  
ZIP: 30309  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette, 3.50 inch, 1.4 Mb Storage  
COMPUTER: Apple Macintosh  
OPERATING SYSTEM: Macintosh 7.1  
SOFTWARE: Microsoft Word 5.1  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/106,433A  
FILING DATE: 08/13/93  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: No. 5385834 Applicable  
FILING DATE: No. 5385834 Applicable  
ATTORNEY/AGENT INFORMATION:  
NAME: Deveau, Colton, and Marquis  
NAME: Colton, Laurence P.  
REGISTRATION NUMBER: Reg. No. 5385834 33,371  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 404-875-8505  
TELEFAX: 404-875-8817  
INFORMATION FOR SEQ ID NO: 3:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 5096 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
MOLECULE TYPE: circular  
HYPOTHETICAL: No  
ANTISENSE: No  
FRAGMENT TYPE: No. 5385834 applicable  
ORIGINAL SOURCE:  
ORGANISM: No. 5385834 applicable  
STRAIN: No. 5385834 applicable

INDIVIDUAL ISOLATE: No. 5385834 applicable  
DEVELOPMENTAL STAGE: No. 5385834 applicable  
HAPOTYPE: No. 5385834 applicable  
CELL TYPE: No. 5385834 applicable  
ORGANELLE: No. 5385834 applicable  
IMMEDIATE SOURCE:  
LIBRARY: No. 5385834 applicable  
CLONE: PKR232-8  
POSITION IN GENOME:  
CHROMOSOME/SEGMENT: No. 5385834 applicable  
MAP POSITION: No. 5385834 applicable  
UNITS: No. 5385834 applicable  
FEATURE:  
NAME/KEY: Cloning polylinker located between  
NAME/KEY: nucleotides 177 and 212 and in front of a  
NAME/KEY: promoterless chloramphenicol acetyl transferase  
LOCATION: 177 to 212  
IDENTIFICATION METHOD: The sequence was provided by  
IDENTIFICATION METHOD: Pharmacia Biotech, Oct. 1989  
OTHER INFORMATION:  
PUBLICATION INFORMATION:  
AUTHORS: Brosius, J. and Lupski, J. R.  
TITLE:  
JOURNAL: Methods in Enzymology  
VOLUME: 153  
ISSUE:  
PAGES: 54-68  
DATE: 1987  
DOCUMENT NUMBER:  
FILING DATE:  
PUBLICATION DATE:  
RELEVANT RESIDUES IN SEQ ID NO: 1 to 5096  
US-08-106-433A-3

Query Match 22.5%; Score 404; DB 1; Length 5096;  
Best Local Similarity 96.5%; Pred. No. 8.9e-91;  
Matches 413; Conservative 0; Mismatches 15; Indels 0; Gaps 0;  
QY 1267 agagcgcacgtcgaagcgaagcttggtccacatgacccatgccaagcgaagcgaag 1326  
DB 1237 ACAATTTGGCTGGCGAGTACGGCGGTGTCCACCTGACCCGCAATGCGAATCTCAGAG 1296  
QY 1327 tgaagcgcgtgagcgcgtgagtggtgtcgcctatgagcgaagcgaagcgaagcga 1386  
DB 1297 TGAAGCGCGGTAGCGCGGTAGTGTGGGTCTCCATCGAGAGTGAAGGAACTGCC 1356  
QY 1387 aggcatacaataaagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcgaag 1446  
DB 1357 AGGCATCAAAATAAAGCAAGGCTGAGTCAAGTGGGCTTGTCTGTATCTGTGT 1416  
QY 1447 tgtgtgagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcga 1506  
DB 1417 TTGTGCGGTGAAGGCTCTCTGTAGTAGGACAAATCCGCGGAGCGGATTGAACTGGC 1476  
QY 1507 aagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcga 1566  
DB 1477 AAGCAAGCGCGGTAGCGCGGTAGTGTGGGTCTCCATCGAGAGTGAAGGAACTGCC 1536  
QY 1567 aagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcga 1626  
DB 1537 AAGCAGAAAGCGCATCTGACGAGTGGCTTTTGGCTTCTACAAACTCTCTGCTGCTC 1596  
QY 1627 atattcaagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcgaagcga 1686  
DB 1597 ATATCTACAGCGCATCTCCCGCACAGATAGGTAACTAGCTGTTTGTGATCAGAGAA 1656  
QY 1687 gcaagctat 1694  
DB 1657 GCAGCTGT 1664

RESULT 2  
US-08-106-433A-4  
Sequence 4, Application US/08106433A  
Patent No. 5385834  
GENERAL INFORMATION:  
APPLICANT: Richard A. Ikeda  
TITLE OF INVENTION: Mutant T7 RNA Polymerase GP(Lys222)  
TITLE OF INVENTION: Exhibiting Altered Promoter Recognition  
NUMBER OF SEQUENCES: 23  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Deveau, Colton, and Marquis  
STREET: Two Midtown Plaza, Suite 1400,  
CITY: Atlanta  
STATE: Georgia  
COUNTRY: USA  
ZIP: 30309  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette, 3.50 inch, 1.4 MB Storage  
COMPUTER: Apple Macintosh  
OPERATING SYSTEM: Macintosh 7.1  
SOFTWARE: Microsoft Word 5.1  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/106,433A  
FILING DATE: 08/13/93  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: No. 5385834 Applicable  
FILING DATE: No. 5385834 Applicable  
ATTORNEY/AGENT INFORMATION:  
NAME: Deveau, Colton, and Marquis  
NAME: Colton, Laurence P.  
REGISTRATION NUMBER: Reg. No. 5385834 33,371  
REFERENCE/DOCKET NUMBER: 10733-161  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 404-875-8817  
TELEFAX: 404-875-8505  
INFORMATION FOR SEQ ID NO: 4:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 5110 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: circular  
MOLECULE TYPE: other nucleic acid  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
FRAGMENT TYPE: No. 5385834 applicable  
ORIGINAL SOURCE:  
ORGANISM: No. 5385834 applicable  
STRAIN: No. 5385834 applicable  
INDIVIDUAL ISOLATE: No. 5385834 applicable  
DEVELOPMENTAL STAGE: No. 5385834 applicable  
HAPOTYPE: No. 5385834 applicable  
TISSUE TYPE: No. 5385834 applicable  
CELL TYPE: No. 5385834 applicable  
ORGANELLE: No. 5385834 applicable  
IMMEDIATE SOURCE:  
LIBRARY: No. 5385834 applicable  
CLONE: PCM-X#  
POSITION IN GENOME:  
CHROMOSOME/SEGMENT: No. 5385834 applicable  
MAP POSITION: No. 5385834 applicable  
UNITS: No. 5385834 applicable  
FEATURE:  
NAME/KEY: Potential T7 promoter located between  
NAME/KEY: nucleotides 198 and 220 and in front of a  
NAME/KEY: promoterless chloramphenicol acetyl transferase  
LOCATION: 198 to 220  
IDENTIFICATION METHOD: The general clone was constructed from PKR232-8 and  
OTHER INFORMATION: If the potential T7 promoter between positions 198 and  
PUBLICATION INFORMATION:

AUTHORS: Ikeda, R.A., Chang, L.L., and Marshamane, G.S.  
TITLE: Selection and Characterization of a Mutant T7  
TITLE: RNA Polymerase that Recognizes an Expanded Range  
TITLE: of T7-Like Promoters  
JOURNAL: Biochemistry  
VOLUME: 32  
ISSUE: 35  
PAGES: 9115-9124  
DATE: Sept. 7, 1993

DOCUMENT NUMBER:  
FILING DATE:  
PUBLICATION DATE:  
DOCUMENT NUMBER:  
FILING DATE:  
PUBLICATION DATE:

RELEVANT RESIDUES IN SEQ ID NO: 1 to 5110  
US-08-106-433A-4

Query Match 22.5% Score 404; DB 1; Length 5110;  
Best Local Similarity 96.5%; Pred. No. 8.9e-91;  
Matches 413; Conservative 0; Mismatches 15; Indels 0; Gaps 0;

QY 1267 agagtcgacctgcagcagctgcaagcttggtccacacccatgcgaactcagaag 1326  
DB 1251 AGAATTGCTGCGGCGAGTAGCGGGGTGTCCACCTGACCCCATCGGAATCAGAA 1310  
QY 1327 tgaagccgctagcgcgcatgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 1386  
DB 1311 TGAACGCGCTAGCGCCCATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1370  
QY 1387 aggcacataaagaagaagctcagtcgaagcttggtgtgtgtgtgtgtgtgtgt 1446  
DB 1371 AGGCTCAATTAAGAAAGGCTCAGTCGAAGACTGGGCTTGTGTGTGTGTGTGT 1430  
QY 1447 ttgtcgtgaacgctctctcctcgtagtaggaacaatccgcgagcgagattgaacgttgcg 1506  
DB 1431 TTGTCGGTGAACGCTCTCTCTGAGTAGAACAAATCCGCGGAGCGGATTTGAACGTTGCG 1490  
QY 1507 aagcaagccgaggggtgtgcgagcagaagccgcacataaactgcagcatcaaat 1566  
DB 1491 AAGCAACGCGCGGAGGGGTGGCGGAGACCCGCCCTTAACCTCCAGGATCAAAAT 1550  
QY 1567 aagcagaagggccatcctcagcagatgagccttttggtttctcaaaccttctctgtc 1626  
DB 1551 AAGCAGAAGGCCATCTGAGGATGAGCCTTTTGCGTTTCAAAACTCTCTGTCGTG 1610  
QY 1627 atatcacaagccatcccccacagatacagtaagcagcctcgtttttgcatcagaana 1686  
DB 1611 ATATCTACAGGCATCCGCCACAGATAGGTAAACTAGCTCTGTTTTCATCAGAA 1670  
QY 1687 gcagctat 1694  
DB 1671 GCAGCTGT 1678

RESULT 3  
US-08-106-433A-5

Sequence 5, Application US/08106433A  
Patent No. 5385834  
GENERAL INFORMATION:  
APPLICANT: Richard A. Ikeda  
TITLE OF INVENTION: Mutant T7 RNA Polymerase GP1(Lys222)  
TITLE OF INVENTION: Exhibiting Altered Promoter Recognition  
NUMBER OF SEQUENCES: 23  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Deveau, Colton, and Marquis  
STREET: Two Midtown Plaza, Suite 1400,  
STREET: 1360 Peachtree St., NE  
CITY: Atlanta  
STATE: Georgia  
COUNTRY: USA  
ZIP: 30309

## COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette, 3.50 inch, 1.4 Mb Storage

COMPUTER: Apple Macintosh 7.1

OPERATING SYSTEM: Macintosh 7.1

SOFTWARE: Microsoft Word 5.1

CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/106.433A

FILING DATE: 08/13/93

CLASSIFICATION: 435

PRIOR APPLICATION DATA:

APPLICATION NUMBER: No. 5385834 Applicable

FILING DATE: No. 5385834 Applicable

ATTORNEY/AGENT INFORMATION:

NAME: Deveau, Colton, and Marquis

REGISTRATION NUMBER: Reg. No. 5385834 33,371

REFERENCE/DOCKET NUMBER: 10733-161

TELECOMMUNICATION INFORMATION:

TELEPHONE: 404-875-8817

TELEFAX: 404-875-8505

INFORMATION FOR SEQ ID NO: 5:

SEQUENCE CHARACTERISTICS:

LENGTH: 5110 base pairs

TYPE: nucleic acid

STRANDEDNESS: double

TOPOLOGY: circular

MOLECULE TYPE: other nucleic acid

HYPOTHETICAL: NO

ANTI-SENSE: NO

FRAGMENT TYPE: No. 5385834 applicable

ORIGINAL SOURCE:

ORGANISM: No. 5385834 applicable

STRAIN: No. 5385834 applicable

INDIVIDUAL ISOLATE: No. 5385834 applicable

DEVELOPMENTAL STAGE: No. 5385834 applicable

HAPLOTYPE: No. 5385834 applicable

TISSUE TYPE: No. 5385834 applicable

CELL TYPE: No. 5385834 applicable

ORGANELLE: No. 5385834 applicable

IMMEDIATE SOURCE:

LIBRARY: No. 5385834 applicable

CLONE: pCAT10-1

POSITION IN GENOME:

CHROMOSOME/SEGMENT: No. 5385834 applicable

MAP POSITION: No. 5385834 applicable

UNITS: No. 5385834 applicable

FEATURE:

NAME/KEY: T7 promoter f10 located between nucleotides

NAME/KEY: 198 and 220 and in front of a promoterless

NAME/KEY: chloramphenicol acetyl transferase (CAT) gene.

LOCATION: 198 to 220

IDENTIFICATION METHOD: The clone was constructed from

IDENTIFICATION METHOD: PKK32-8 and the inserted "promoter" was sequenced.

OTHER INFORMATION: The T7 promoter between positions 198 and 220 is recogn

PUBLICATION INFORMATION:

AUTHORS: Ikeda, R.A., Chang, L.L., and Marshamane, G.S.

TITLE: Selection and Characterization of a Mutant T7

TITLE: RNA Polymerase that Recognizes an Expanded Range

TITLE: of T7-Like Promoters

JOURNAL: Biochemistry

VOLUME: 32

ISSUE: 35

PAGES: 9115-9124

DATE: Sept. 7, 1993

DOCUMENT NUMBER:  
PUBLICATION DATE:  
DOCUMENT NUMBER:  
FILING DATE:  
PUBLICATION DATE:  
RELEVANT RESIDUES IN SEQ ID NO: 1 to 5110  
US-08-106-433A-5

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Query Match      22.5%; Score 404; DB 1; Length 5110;
Best Local Similarity 96.5%; Pred. No. 8.9e-91;
Matches 413; Conservative 0; Mismatches 15; Indels 0; Gaps 0;

QY 1267 agagtcgacctgagcagatgcaagcttgggtccaccctgaacccatgacgaactcagaag 1326
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1251 AGAATTTGGCTGGCGGAGTGGAGTGGGCTCCACCTGACCCCAATCGGAACTCAGAAAG 1310

QY 1327 tgaacgacgtagcgcgagatgtagtctgaggtctcccatgagagaagtaaggaaactgac 1386
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1311 TGAACGCGGTAGCGCGGATGGTAGTGGGCTCCCATGCGAGAGTAGGGAAGTGGCC 1370

QY 1387 aggcatacaataaaacgaagagctcagtcgaagagactgggaccttgcgtttatctgtct 1446
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1371 AGGCATCAATATAAGAAAGGCTCAGTCGAAGAGTGGGCTTGGTTTATCTGTGT 1430

QY 1447 ttgtcgtagaagctctccttgatagacaataatcgccggagagagacttgaacgttgcg 1506
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1431 TTGTCTGATAGCGCTCTCTCTGAGTACGACAAATCCGCGGAGCGGATTTGAACGTTGGC 1490

QY 1507 aagcaacgagccgagagtgtagcgaggaagcgcgcgacataaactgcagagcaactcaat 1566
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1491 AGCAACGCGCCGAGGAGTGGCGGAGAGCAGCAGCCCATTAATCTCCAGGATCAAAAT 1550

QY 1567 aagcaagagcgaatcctgaacgagatggaccttctgctttctacaacactcttcgtctgc 1626
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1551 AAGCAAGAGGCAATCTCTGACGATGGCTTTTGGCTTTTACAACTCTCTCTGTCGTC 1610

QY 1627 atatacaagcattcccccaacagatagcgttaactagcctctgttttgacaaagaaa 1686
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1611 ATATCTACAGCCATCCCGCCACAGATACGTAACGTAACGCTGTTTGGACATCAGGAAA 1670

QY 1687 gcaagcat 1694
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1671 GCAGCTGT 1678

```

```

TELEPHONE: 404-875-8817
TELEFAX: 404-875-8505
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 5110 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: circular
MOLECULE TYPE: other nucleic acid
HYPOTHETICAL: NO
ANTI-SENSE: NO
FRAGMENT TYPE: No. 5385834 applicable
ORIGINAL SOURCE:
ORGANISM: No. 5385834 applicable
SPRAIN: No. 5385834 applicable
INDIVIDUAL ISOLATE: No. 5385834 applicable
DEVELOPMENTAL STAGE: No. 5385834 applicable
HAPLOTYPE: No. 5385834 applicable
TISSUE TYPE: No. 5385834 applicable
CELL TYPE: No. 5385834 applicable
ORGANELLE: No. 5385834 applicable
IMMEDIATE SOURCE:
LIBRARY: No. 5385834 applicable
CLONE: PCM-T297
POSITION IN GENOME:
CHROMOSOME/SEGMENT: No. 5385834 applicable
MAP POSITION: No. 5385834 applicable
UNITS: No. 5385834 applicable
FEATURE:
NAME/KEY: Inactive T7 f10 promoter mutant (-116 to T) located between nucl
LOCATION: 198 to 220
IDENTIFICATION METHOD: The clone was constructed from
IDENTIFICATION METHOD: pK232-8 and the inserted "promoter" was sequenced.
OTHER INFORMATION: If the mutant T7 promoter between positions 198 and 220
PUBLICATION INFORMATION:
AUTHORS: Ikeda, R.A., Chang, L.L., and Marshamama, G.S.
TITLE: Selection and Characterization of a Mutant T7
TITLE: RNA Polymerase that Recognizes an Expanded Range
JOURNAL: Biochemistry
VOLUME: 32
ISSUE: 35
PAGES: 9115-9124
DATE: Sept. 7, 1993
DOCUMENT NUMBER:
PUBLICATION DATE:
DOCUMENT NUMBER:
FILING DATE:
PUBLICATION DATE:
RELEVANT RESIDUES IN SEQ ID NO: 1 to 5110
US-08-106-433A-6

Query Match      22.5%; Score 404; DB 1; Length 5110;
Best Local Similarity 96.5%; Pred. No. 8.9e-91;
Matches 413; Conservative 0; Mismatches 15; Indels 0; Gaps 0;

QY 1267 agagtcgacctgagcagatgcaagcttgggtccaccctgaacccatgacgaactcagaag 1326
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1251 AGAATTTGGCTGGCGGAGTGGAGTGGGCTCCACCTGACCCCAATCGGAACTCAGAAAG 1310

QY 1327 tgaacgacgtagcgcgagatgtagtctgaggtctcccatgagagaagtaaggaaactgac 1386
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1311 TGAACGCGGTAGCGCGGATGGTAGTGGGCTCCCATGCGAGAGTAGGGAAGTGGCC 1370

QY 1387 aggcatacaataaaacgaagagctcagtcgaagagactgggaccttgcgtttatctgtct 1446
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1371 AGGCATCAATATAAGAAAGGCTCAGTCGAAGAGTGGGCTTGGTTTATCTGTGT 1430

QY 1447 ttgtcgtagaagctctccttgatagacaataatcgccggagagagacttgaacgttgcg 1506
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1431 TTGTCTGATAGCGCTCTCTCTGAGTACGACAAATCCGCGGAGCGGATTTGAACGTTGGC 1490

```

Qy	1507	aagcaagaagcccggaagaggttgagcggaaggaagccgcgaataacgcaagcatcaaat	1566
Db	1491	AAGCAAGAGCCCGAAGGTGCGGCGAGGACGCCCTAACTAGCCAGGCATCAAAAT	1550
Qy	1567	aagcagaagcgcatcctcgacgga tggccttlttgcttctacaactcttcctgtgctc	1626
Db	1551	AAGCAGAAGGCCATCCGAGAGATGGCCCTTTTGGCTTCTCAAAACCTTCCTGTCTC	1610
Qy	1627	ataltcaagaagcatccccacacaga ttaacgtaacatagcctcglttlttgcaagaaa	1686
Db	1611	ATATCTCAAGCCATCCGCCCCACAGATAGGTAACCTAGCCCTTTTGCATCAGAAA	1670
Qy	1687	gcacatcat 1694	
Db	1671	GCAGCTGT 1678	

RESULT 5  
US-08-106-

; Sequence 7, Application US/08106433A

Patent No. 5385834  
GENERAL INFORMATION:  
APPLICANT: Richard A. Ikeda  
TITLE OF INVENTION: Mutant T7 RNA Polymerase GPl(Lys222)  
TITLE OF INVENTION: Exhibiting Altered Promoter Recognition  
NUMBER OF SEQUENCES: 23  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Deveau, Colton, and Marquis  
STREET: Two Midtown Plaza, Suite 1400,  
CITY: Atlanta  
STATE: Georgia  
COUNTRY: USA  
ZIP: 30309  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette, 3.50 Inch, 1.4 MB Storage  
COMPUTER: Apple Macintosh  
OPERATING SYSTEM: Macintosh 7.1  
SOFTWARE: Microsoft Word 5.1  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/106,433A  
FILING DATE: 08/13/93  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: No. 5385834 Applicable  
FILING DATE: No. 5385834 Applicable  
ATTORNEY/AGENT INFORMATION:  
NAME: Deveau, Colton, and Marquis  
REGISTRATION NUMBER: Reg. No. 5385834 33,371  
REFERENCE/DOCKET NUMBER: 10735-161  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 404-875-8817  
TELEFAX: 404-875-8505  
INFORMATION FOR SEQ ID NO: 7:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 5110 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: circular  
MOLECULE TYPE: other nucleic acid  
HYPOTHETICAL: No  
ANTI-SENSE: No  
FRAGMENT TYPE: No. 5385834 applicable  
ORIGINAL SOURCE:  
ORGANISM: No. 5385834 applicable  
STRAIN: No. 5385834 applicable  
INDIVIDUAL ISOLATE: No. 5385834 applicable  
DEVELOPMENTAL STAGE: No. 5385834 applicable  
HAPLOTYPE: No. 5385834 applicable  
TISSUE TYPE: No. 5385834 applicable  
CELL TYPE: No. 5385834 applicable

ORGANELLE: NO. 5385834 applicable  
IMMEDIATE SOURCE:  
LIBRARY: No. 5385834 applicable  
CLONE: pcm-p1160  
POSITION IN GENOME:  
CHROMOSOME/SEGMENT: No. 5385834 applicable  
MAP POSITION: No. 5385834 applicable  
UNITS: No. 5385834 applicable  
FEATURE:  
NAME/KEY: Inactive T7 f10 promoter mutant (-9C to C) located between nucle  
LOCATION: 198 to 220  
IDENTIFICATION METHOD: The clone was constructed from  
IDENTIFICATION METHOD: PKK32-8 and the inserted "promoter" was sequenced.  
OTHER INFORMATION: If  
PUBLICATION INFORMATION:  
AUTHORS: Ikeda, R.A., Chang, L.L., and Warshamana, G.S.  
TITLE: Selection and Characterization of a Mutant T7  
TITLE: RNA Polymerase that Recognizes an Expanded Range  
TITLE: of T7-like Promoters  
JOURNAL: Biochemistry  
VOLUME: 32  
ISSUE: 35  
PAGES: 9115-9124  
DATE: Sept. 7, 1993  
DOCUMENT NUMBER:  
FILING DATE:  
PUBLICATION DATE:  
DOCUMENT NUMBER:  
FILING DATE:  
PUBLICATION DATE:  
RELEVANT RESIDUES IN SEQ ID NO: 1 to 5110  
US-08-106-433A-7

Query Match	22.5%	Score 404	DB 1	Length 5110
Best Local Similarity	96.5%	Pred. No. 8.9e-91		
Matches 413	Conservative	0	Mismatches 15	Indels 0
				Gaps 0

QY	1267	agagtcgaacgtccgaagatgcaagcttgggtctccaccttaccaccaatgcgcgaactagaag	13256
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QY	1327	tgaaacgcctagtcgcgcgaatgtagtbtgtyggctctcccatgcgaagataggaactgc	1386
Db	1311	TGAACCGCGTAGCGCGAGTAGTAGTGTGGGCTCTCCATCGAGAGTAGGGAAGCTGCC	13707
QY	1387	aggcataaataaacaagaaagctcagtcgaataagacttggccttcgtttatctcttgt	1446
Db	1371	AGGCATCAAAATMAAACCAAGAGCTCAGTCAAGTCAAGACATGGGCGCTTTTGTTATCTGTGT	1430
QY	1447	ttgtcgtgtgaacgctctccctgaatagacaacatccgcgcggagggagattgaacttgc	1506
Db	1431	TTGTGGTGAACGCTCTCTCTGAGTAGACAAATCCCGCGAGCGGATTTGAACCTTCCG	1490
QY	1507	aagcaacgccccgaagggttgycgagcagagccgcgaataacttgcgcagatcaaat	1566
Db	1491	AAGCAACGGCCCCGAGAGGTGGCGGGGACGAGCGCCCATMAATGTCCAGCATCAATT	1550
QY	1567	aagcagaagagccatctctgaacgagatgaccttttgcgttcttacaacatctctctgtgc	1626
Db	1551	AAGCGAAGGCGCATCTGACGGAGATGGGCTTTTGCTTCTACAACTTCTCTGTCTC	1610
QY	1627	atattacaagccatctcccccacagatacgaatgaactagcctctgttttgcatacagaa	1686
Db	1611	ATATCTACAACCCATCTCCCGCCACAGATAGCGTAACTAGCTCTGTTTGGCATCAGAAA	16707
QY	1687	gcacgtcat 1694	
Db	1671	GCACGTGT 1678	

RESULT 6  
US-08-106-433A-8

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: Sequence 8, Application US/08106433A
: Patent No. 5385834
: GENERAL INFORMATION:
: APPLICANT: Richard A. Ikeda
: TITLE OF INVENTION: Mutant T7 RNA Polymerase GP1(Lys222)
: TITLE OF INVENTION: Exhibiting Altered Promoter Recognition
: NUMBER OF SEQUENCES: 23
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Deveau, Colton, and Margulis
: STREET: Two Midtown Plaza, Suite 1400,
: STREET: 1360 Peachtree St., NE
: CITY: Atlanta
: STATE: Georgia
: COUNTRY: USA
: ZIP: 30309
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Diskette, 3.50 inch, 1.4 Mb Storage
: COMPUTER: Apple Macintosh
: OPERATING SYSTEM: McIntosh 7.1
: SOFTWARE: Microsoft Word 5.1
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/08/106,433A
: FILING DATE: 08/13/93
: CLASSIFICATION: 435
: PRIORITY APPLICATION DATA:
: APPLICATION NUMBER: No. 5385834 Applicable
: FILING DATE: No. 5385834 Applicable
: ATTORNEY/AGENT INFORMATION:
: NAME: Deveau, Colton, and Margulis
: REGISTRATION NUMBER: Reg. No. 5385834 33,371
: REFERENCE/DOCKET NUMBER: 10733-161
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: 404-875-8817
: TELEFAX: 404-875-8505
: INFORMATION FOR SEQ ID NO: 8:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 5110 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: double
: TOPOLOGY: circular
: MOLECULE TYPE: other nucleic acid
: HYPOTHEICAL: NO
: ANTI-SENSE: NO
: FRAGMENT TYPE: NO. 5385834 applicable
: ORIGINAL SOURCE:
: ORGANISM: No. 5385834 applicable
: STRAIN: No. 5385834 applicable
: INDIVIDUAL ISOLATE: No. 5385834 applicable
: DEVELOPMENTAL STAGE: No. 5385834 applicable
: HAPLOTYPE: No. 5385834 applicable
: TISSUE TYPE: No. 5385834 applicable
: CELL TYPE: No. 5385834 applicable
: ORGANELLE: No. 5385834 applicable
: IMMEDIATE SOURCE:
: LIBRARY: No. 5385834 applicable
: CLONE: PCM-T270
: POSITION IN GENOME:
: CHROMOSOME/SEGMENT: No. 5385834 applicable
: MAP POSITION: No. 5385834 applicable
: UNITS: No. 5385834 applicable
: FEATURE:
: NAME/KEY: Inactive T7 f10 promoter mutant (-9C to A) located between nucle
: LOCATION: 198 to 220
: IDENTIFICATION METHOD: The clone was constructed from
: IDENTIFICATION METHOD: PKK232-8 and the inserted "promoter" was sequenced.
: OTHER INFORMATION: If the mutant T7 promoter between positions 198 and 220
: PUBLICATION INFORMATION:
: AUTHORS: Ikeda, R.A., Chang, L.L., and Marshamama, G.S.
: TITLE: Selection and Characterization of a Mutant T7
: TITLE: RNA Polymerase that Recognizes an Expanded Range
: TITLE: of T7-like Promoters
: JOURNAL: Biochemistry

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: VOLUME: 32
: ISSUE: 35
: PAGES: 9115-9124
: DATE: Sept. 7, 1993
: DOCUMENT NUMBER:
: FILING DATE:
: PUBLICATION DATE:
: DOCUMENT NUMBER:
: FILING DATE:
: PUBLICATION DATE:
: RELEVANT RESIDUES IN SEQ ID NO: 1 to 5110
: US-08-106-433A-8
:
: Query Match 22.5%; Score 404; DB 1; Length 5110;
: Best Local Similarity 96.5%; Pred. No. 8,9e-91;
: Matches 413; Conservative 0; Mismatches 15; Indels 0; Gaps 0;
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: QY 1267 aaagtcgacctgcagcagcatgcaagcttggtggtccacatgaccatgcgaactcagaag 1326
:   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
: DB 1251 AGAATTGGCTGGCGGAGTACGGCGGTGTCACCTGACCCATGCCAGACTCAGAAG 1310
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: QY 1327 tgaagcccgtagcgccgagtagtggtggtgtcccatgagagtaggaactgac 1386
:   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
: DB 1311 TGAAGCCCGTAGCGCGGATGATGAGTGGGTCTCCCATCGAGAGTAGGAACTGCG 1370
:
: QY 1387 aggcataataaagaaagcctcagtcgaagactgagccttcgtttcctgtgtg 1446
:   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
: DB 1371 AGCATCAATATAAGAAAGGCTCAGTGAAGACTGGGCTTTCGTTTATCGTTGT 1430
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: QY 1447 ttgtcggtgaagcctctcctgtagtaggaacaatccgcggagaggaattgaagctg 1506
:   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
: DB 1431 TTGTGGGTGAAGCTCTCTCTGAGTAGGACAAATCCGCCGGAGCGGATTTGAACGTTGG 1490
:
: QY 1507 aagcaagcccggaaggtggtggtggtggtggtggtggtggtggtggtggtggtggt 1566
:   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
: DB 1491 AAGCAAGCGCCCGAGGAGGCGGCGAGACGCCGCCCTAAACTGCCAGCATCAATT 1550
:
: QY 1567 aagcaagagccatcctgagagtagtgccttttgctttctacaaacttctgtcgtc 1626
:   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
: DB 1551 AAGCAAGAGCCATCCTGACGAGTGGCTTTTGGCTTCTCAAAACTCTCTCTGCTG 1610
:
: QY 1627 atactcaagagcattcccccacagataagcgttaactagcttcgttttgatcaggaa 1686
:   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
: DB 1611 ATATCTCAAGCATCCGCCACAGATAGGTAACACTGCTGTTTGCATCAGGAAA 1670
:
: QY 1687 gcaagcat 1694
:   ||||| ||
: DB 1671 GCAGCTGT 1678
:
: RESULT 7
: US-08-106-433A-9
: Sequence 9, Application US/08106433A
: Patent No. 5385834
: GENERAL INFORMATION:
: APPLICANT: Richard A. Ikeda
: TITLE OF INVENTION: Mutant T7 RNA Polymerase GP1(Lys222)
: TITLE OF INVENTION: Exhibiting Altered Promoter Recognition
: NUMBER OF SEQUENCES: 23
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Deveau, Colton, and Margulis
: STREET: Two Midtown Plaza, Suite 1400,
: STREET: 1360 Peachtree St., NE
: CITY: Atlanta
: STATE: Georgia
: COUNTRY: USA
: ZIP: 30309
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Diskette, 3.50 inch, 1.4 Mb Storage
: COMPUTER: Apple Macintosh
: OPERATING SYSTEM: McIntosh 7.1
: SOFTWARE: Microsoft Word 5.1

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CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/106.433A  
 FILING DATE: 08/13/93  
 CLASSIFICATION: 435  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: No. 5385834 Applicable  
 FILING DATE: No. 5385834 Applicable  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Deveau, Colton, and Marquis  
 NAME: Colton, Laurence P.  
 REGISTRATION NUMBER: Reg. No. 5385834 33,371  
 REFERENCE/DOCKET NUMBER: 10733-161  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: 404-875-8817  
 TELEFAX: 404-875-8505  
 INFORMATION FOR SEQ ID NO: 9:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 5110 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: double  
 TOPOLOGY: circular  
 MOLECULE TYPE: other nucleic acid  
 HYPOTHEICAL: NO  
 ANTI-SENSE: NO  
 FRAGMENT TYPE: No. 5385834 applicable  
 ORIGINAL SOURCE:  
 ORGANISM: No. 5385834 applicable  
 STRAIN: No. 5385834 applicable  
 INDIVIDUAL ISOLATE: No. 5385834 applicable  
 DEVELOPMENTAL STAGE: No. 5385834 applicable  
 HAPLOTYPE: No. 5385834 applicable  
 TISSUE TYPE: No. 5385834 applicable  
 CELL TYPE: No. 5385834 applicable  
 ORGANELLE: No. 5385834 applicable  
 IMMEDIATE SOURCE:  
 LIBRARY: No. 5385834 applicable  
 CLONE: pcm-p1087  
 POSITION IN GENOME:  
 CHROMOSOME/SEGMENT: No. 5385834 applicable  
 MAP POSITION: No. 5385834 applicable  
 UNITS: No. 5385834 applicable  
 FEATURE:  
 NAME/KEY: Inactive T7 f10 promoter mutant (-9C to T) located between nucle  
 LOCATION: 198 to 220  
 IDENTIFICATION METHOD: The clone was constructed from  
 IDENTIFICATION METHOD: PKR232-8 and the inserted "promoter" was sequenced.  
 OTHER INFORMATION: If the mutant T7 promoter between positions 198 and 220  
 PUBLICATION INFORMATION:  
 AUTHORS: Ikeda, R.A., Chang, L.L., and Marshana, G. S.  
 TITLE: Selection and Characterization of a Mutant T7  
 TITLE: RNA Polymerase that Recognizes an Expanded Range  
 OF TITLE: of T7-like Promoters  
 JOURNAL: Biochemistry  
 VOLUME: 32  
 ISSUE: 35  
 PAGES: 9115-9124  
 DATE: Sept. 7, 1993  
 DOCUMENT NUMBER:  
 FILING DATE:  
 PUBLICATION DATE:  
 DOCUMENT NUMBER:  
 FILING DATE:  
 PUBLICATION DATE:  
 RELEVANT RESIDUES IN SEQ ID NO: 1 to 5110  
 US-08-106-433A-9

	Query Match	22.5%	Score 404	DB 1	Length 5110
	Best Local Similarity	96.5%	Pred. No. 8.9e-91		
	Matches 413	Conservative 0	Matches 15	Indels 0	Gaps 0
QY	1267	agagtcgacgcctgcagagctgcgaagcttggtrccaccctgcgaccctatgcgaatcagaag	1326		

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Db 1251 AGAATTTCCTGGGCGGACGATGAGGCGCGGTGGTCCCACTACCCCACTAGCCCAATCGACAG 1310
OY 1327 tgaacgcgcgtagcgcgcgaatggtagtgtggtggtcctcccaatgcgaagtaggaactgccc 1386
Db 1311 TGAAGACCCCGTAGGCGCGGATGATGATGGGGGCTCTCCCATCGAGAGATAGGGAACCTGCC 1370
OY 1387 aggcataataataacgaagaagtcctgctgtaaaagatctgggccttcgtttatctgtgtc 1446
Db 1371 AGGCATCAAAATAAAAACCAAAAGGCTCAGTCGAAAGACTGGGGCTTTTCGTTTATCTGTGT 1430
OY 1447 ttgcgcgtlgaacgctccctccgtagtagaacaatccgcgcggagcgagattgaaactg 1506
Db 1431 TTGTCGGTGAACGCTCTCTCTGAGTAGACAAATCCCGCGGAGCGGATTTGAACTTCCG 1490
OY 1507 aagcaacgccccggaagggtggtgcggaggaagcgcgcgaataactgcgaagcatcaatt 1566
Db 1491 AAGCAACGCCCCGGAGGGGTGGCGGACGAGCGCCGCCATTAACATGCGAGGATCAAAAT 1550
OY 1567 aagcaagaagcctatcctgaacggaatggccttttggtttctacaactcttcgtgtc 1626
Db 1551 AAGCAGAAAGGCATCCGACGAGATGGCTCTTTTTCGTTCTCAAAACTCTTCCTGCTC 1610
OY 1627 atactcaagccatcccccacagaatagcgtaaactagcccttttgatcaaggaa 1686
Db 1611 ATATCTACAAACCTATCCCGCCACAGATACGATAACTAGCTGTTTTCATCAGGAA 1670
OY 1687 gcaagcat 1694
Db 1671 GCAGCTGT 1678

RESULT 8
US-08-106-433A-10
: Sequence 10, Application US/08106433A
: Patent No. 5385834
: GENERAL INFORMATION:
: APPLICANT: Richard A. Ireda
: TITLE OF INVENTION: Mutant T7 RNA Polymerase GP1(Lys222)
: TITLE OF INVENTION: Exhibiting Altered Promoter Recognition
: NUMBER OF SEQUENCES: 23
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Deyau, Colton, and Marquis
: STREET: Two Midtown Plaza, Suite 1400,
: STREET: 1360 Peachtree St., NE
: CITY: Atlanta
: STATE: Georgia
: COUNTRY: USA
: ZIP: 30309
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Diskette, 3.50 inch, 1.4 MB Storage
: COMPUTER: Apple Macintosh
: OPERATING SYSTEM: McIntosh 7.1
: SOFTWARE: Microsoft Word 5.1
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/08/106,433A
: FILING DATE: 08/13/93
: CLASSIFICATION: 435
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: No. 5385834 Applicable
: FILING DATE:
: ATTORNEY/AGENT INFORMATION:
: NAME: Deyau, Colton, and Marquis
: NAME: Colton, Laurence P.
: REGISTRATION NUMBER: Reg. No. 5385834 33, 371
: REFERENCE/DOCKET NUMBER: 10733-161
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: 404-875-8817
: TELEFAX: 404-875-8505
: INFORMATION FOR SEQ ID NO: 10:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 510 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: double

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RESULT 8  
 US-08-106-433A-10  
 Sequence 10 Application US/08106433A  
 Patent No. 5385834  
 GENERAL INFORMATION:  
 APPLICANT: Richard A. Ikeda  
 TITLE OF INVENTION: Mutant T7 RNA Polymerase Gp1(Ty5222)  
 TITLE OF INVENTION: Exhibiting Altered Promoter Recognition  
 NUMBER OF SEQUENCES: 23  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: Deveau, Colton, and Marquis  
 STREET: Two Midtown Plaza, Suite 1400,  
 STREET: 1360 Peachtree St., NE  
 CITY: Atlanta  
 STATE: Georgia  
 COUNTRY: USA  
 ZIP: 30309  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: Diskette, 3.50 inch, 1.4 Mb Storage  
 COMPUTER: Apple Macintosh  
 OPERATING SYSTEM: McIntosh 7.1  
 SOFTWARE: Microsoft word 5.1  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/106,433A  
 FILING DATE: 08/13/93  
 CLASSIFICATION: 435  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: No. 5385834 Applicable  
 FILING DATE: No. 5385834 Applicable  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Deveau, Colton, and Marquis  
 NAME: Colton, Laurence P.  
 REGISTRATION NUMBER: Reg. No. 5385834 33,371  
 REFERENCE/DOCKET NUMBER: 10733-161  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: 404-875-8817  
 TELEFAX: 404-875-8505  
 INFORMATION FOR SEQ ID NO: 10:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 5110 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: double





UNITS: No. 5385834 applicable  
FEATURE:  
NAME/KEY: Inactive T7 f10 promoter mutant (-8T to A) located between nucle  
LOCATION: 198 to 220  
IDENTIFICATION METHOD: The clone was constructed from  
IDENTIFICATION METHOD: PK232-8 and the inserted "promoter" was sequenced.  
OTHER INFORMATION: If the mutant T7 promoter between positions 198 and 220  
PUBLICATION INFORMATION:  
AUTHORS: Ikeda, R.A., Chang, L.L., and Marshamane, G.S.  
TITLE: Selection and Characterization of a Mutant T7  
TITLE: RNA Polymerase that Recognizes an Expanded Range  
JOURNAL: Biochemistry  
VOLUME: 32  
ISSUE: 35  
PAGES: 9115-9124  
DATE: Sept. 7, 1993  
DOCUMENT NUMBER:  
FILING DATE:  
PUBLICATION DATE:  
DOCUMENT NUMBER:  
FILING DATE:  
PUBLICATION DATE:  
RELEVANT RESIDUES IN SEQ ID NO: 1 to 5110  
US-08-106-433A-11

Query Match 22.58; Score 404; DB 1; Length 5110;  
Best Local Similarity 96.5%; Pred. No. 8.9e-91;  
Matches 413; Conservative 0; Mismatches 15; Indels 0; Gaps 0;

QY 1267 agagtcgactgacgagatgcaactggtgctccactgacccatccgaactcaaaag 1326  
DB 1251 AGATTGCTGGCGGACAGTACGCGGTGGTCCCTGACCCATCCGACATCAGAG 1310  
QY 1327 tgaacgcgtagcgcgcatgtagtgcggtctcccaatgcgaagtaggaacgcgc 1386  
DB 1311 TGAACGCCGAGCGCGATGTGTGGGGTCTCCCATGCCAGATGAGGAATGCC 1370  
QY 1387 aggcataataaagcaagagctcagtcgaagaagcctggtctttatctgttgc 1446  
DB 1371 AGGCATCAATTAATAACCAAGGCTCAGTCAAAAGACTGGGGCTTTTATCTGTGT 1430  
QY 1447 ttgtcgtgtagacgtctcctcgtatgagacaatccgcgcggaagcgagattgaaagttgcg 1506  
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QY 1567 aagcagaagcgcacatcctgacgagatgaccttttgcgttttctacaactctctgtgc 1626  
DB 1551 AAGCAGAAGGCCATCCATCGAGGAGTGGCTTTTTCCTTCAAACTCTTCCCTGTGCTC 1610  
QY 1627 atatctcaagcattcccccacagatacgttaactagacctgttttgatcaagaa 1686  
DB 1611 ATATCTCAAGGCCATCCCGCCACAGATACGTAACCTAGCTCTTTTTCATGAGGAAA 1670  
QY 1687 gcagact 1694  
DB 1671 GCACCTGT 1678  
RESULT 10  
US-08-106-433A-12  
; Sequence 12, Application US/08106433A  
; Patent No. 5385834  
; GENERAL INFORMATION:  
; APPLICANT: Richard A. Ikeda  
; TITLE OF INVENTION: Mutant T7 RNA Polymerase GP1(Lys222)  
; TITLE OF INVENTION: Exhibiting Altered Promoter Recognition  
; NUMBER OF SEQUENCES: 23

CORRESPONDENCE ADDRESS:  
ADDRESSEE: Deveau, Colton, and Margis  
STREET: Two Midtown Plaza, Suite 1400,  
STREET: 1360 Peachtree St., NE  
CITY: Atlanta  
STATE: Georgia  
COUNTRY: USA  
ZIP: 30309  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette, 3.50 inch, 1.4 Mb Storage  
COMPUTER: Apple Macintosh  
OPERATING SYSTEM: Macintosh 7.1  
SOFTWARE: Microsoft Word 5.1  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/106,433A  
FILING DATE: 08/13/93  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: No. 5385834 Applicable  
FILING DATE: No. 5385834 Applicable  
ATTORNEY/AGENT INFORMATION:  
NAME: Deveau, Colton, and Margis  
NAME: Colton, Laurence P.  
REGISTRATION NUMBER: Reg. No. 5385834 33,371  
REFERENCE/DOCKET NUMBER: 10733-161  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 404-875-8817  
TELEFAX: 404-875-8505  
INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 5110 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: circular  
MOLECULE TYPE: other nucleic acid  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
FRAGMENT TYPE: No. 5385834 applicable  
ORIGINAL SOURCE:  
ORGANISM: No. 5385834 applicable  
STRAIN: No. 5385834 applicable  
INDIVIDUAL ISOLATE: No. 5385834 applicable  
DEVELOPMENTAL STAGE: No. 5385834 applicable  
HAPLOTYPE: No. 5385834 applicable  
TISSUE TYPE: No. 5385834 applicable  
CELL TYPE: No. 5385834 applicable  
ORGANELLE: No. 5385834 applicable  
IMMEDIATE SOURCE:  
LIBRARY: No. 5385834 applicable  
CLONE: PCM-B64  
POSITION IN GENOME:  
CHROMOSOME/SEGMENT: No. 5385834 applicable  
MAP POSITION: No. 5385834 applicable  
UNITS: No. 5385834 applicable  
FEATURE:  
NAME/KEY: Intermediate T7 f10 promoter mutant (-8T to C) located between n  
LOCATION: 198 to 220  
IDENTIFICATION METHOD: The clone was constructed from  
IDENTIFICATION METHOD: PK232-8 and the inserted "promoter" was sequenced.  
OTHER INFORMATION: The mutant T7 promoter between positions 198 and 220 is  
PUBLICATION INFORMATION:  
AUTHORS: Ikeda, R.A., Chang, L.L., and Marshamane, G.S.  
TITLE: Selection and Characterization of a Mutant T7  
TITLE: RNA Polymerase that Recognizes an Expanded Range  
JOURNAL: Biochemistry  
VOLUME: 32  
ISSUE: 35  
PAGES: 9115-9124  
DATE: Sept. 7, 1993  
DOCUMENT NUMBER:  
FILING DATE:  
PUBLICATION DATE:



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Db 1371 AGGCATCAATAAAGCAAGGCTCAGTCAAGACGTGGCCTTTCGTTTATCTGTGT 1430
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Qy 1447 ttgtcgtgaacgctcttcctgaagtagacaatcccgaggagcgagattgaagttcg 1506
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RESULT 12
US-08-106-433A-14
; Sequence 14, Application US/08106433A
; Patent No. 5385834
; GENERAL INFORMATION:
; APPLICANT: Richard A. Ikeda
; TITLE OF INVENTION: Mutant T7 RNA Polymerase gp1(Lys222)
; TITLE OF INVENTION: Exhibiting Altered Promoter Recognition
; NUMBER OF SEQUENCES: 23
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Deveau, Colton, and Marquis
; STREET: Two Midtown Plaza, Suite 1400,
; STREET: 1360 Peachtree St., NE
; CITY: Atlanta
; STATE: Georgia
; COUNTRY: USA
; ZIP: 30309
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.50 inch, 1.4 Mb Storage
; COMPUTER: Apple Macintosh
; OPERATING SYSTEM: McIntosh 7.1
; SOFTWARE: Microsoft Word 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/106,433A
; FILING DATE: 08/13/93
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: No. 5385834 Applicable
; FILING DATE: No. 5385834 Applicable
; ATTORNEY/AGENT INFORMATION:
; NAME: Deveau, Colton, and Marquis
; NAME: Colton, Laurence P.
; REGISTRATION NUMBER: Reg. No. 5385834 33,371
; REFERENCE/DOCKET NUMBER: 10733-161
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 404-875-8817
; TELEFAX: 404-875-8505
; INFORMATION FOR SEQ ID NO: 14:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 5110 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: circular
; MOLECULE TYPE: other nucleic acid
; HYPOTHEICAL: NO
; ANTI-SENSE: NO
; FRAGMENT TYPE: No. 5385834 applicable
; ORIGINAL SOURCE:
; ORGANISM: No. 5385834 applicable

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; STRAIN: No. 5385834 applicable
; INDIVIDUAL ISOLATE: No. 5385834 applicable
; DEVELOPMENTAL STAGE: No. 5385834 applicable
; HAPLOTYPE: No. 5385834 applicable
; TISSUE TYPE: No. 5385834 applicable
; CELL TYPE: No. 5385834 applicable
; ORGANELLE: No. 5385834 applicable
; IMMEDIATE SOURCE:
; LIBRARY: No. 5385834 applicable
; CLONE: pcm-p1031
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT: No. 5385834 applicable
; MAP POSITION: No. 5385834 applicable
; UNITS: No. 5385834 applicable
; FEATURE:
; NAME/KEY: Inactive T7 f10 promoter mutant (-7C to A) located between nucle
; LOCATION: 198 to 220
; IDENTIFICATION METHOD: The clone was constructed from
; IDENTIFICATION METHOD: PKR232-8 and the inserted "promoter" was sequenced.
; OTHER INFORMATION: If the mutant T7 promoter between positions 198 and 220
; PUBLICATION INFORMATION:
; AUTHORS: Ikeda, R.A., Chang, L.L., and Warrhamana, G.S.
; TITLE: Selection and Characterization of a Mutant T7
; TITLE: RNA Polymerase that Recognizes an Expanded Range
; TITLE: of T7-like Promoters
; JOURNAL: Biochemistry
; VOLUME: 32
; ISSUE: 35
; PAGES: 9115-9124
; DATE: Sept. 7, 1993
; DOCUMENT NUMBER:
; FILING DATE:
; PUBLICATION DATE:
; DOCUMENT NUMBER:
; FILING DATE:
; PUBLICATION DATE:
; RELEVANT RESIDUES IN SEQ ID NO: 1 to 5110
; US-08-106-433A-14

Query Match 22.5%; Score 404; DB 1; Length 5110;
Best Local Similarity 96.5%; Pred. No. 8.9e-91;
Matches 413; Conservative 0; Mismatches 15; Indels 0; Gaps 0;

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Qy 1687 gcaagctat 1694
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COUNTRY: U.S.A.  
ZIP: 53717-1914  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent In Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/801,344  
FILING DATE:  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Sara, Charles S.  
REFERENCE/DOCKET NUMBER: 09820.037  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 608-831-2100  
TELEFAX: 608-831-2106  
INFORMATION FOR SEQ ID NO: 2:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 4476 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: circular  
MOLECULE TYPE: DNA (genomic)  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
ORIGINAL SOURCE:  
ORGANISM: Vector pSE380

Job time: 13787 sec

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